

integral consulting inc.

Figure 1-1 Vicinity Map Slip 4 Removal Design

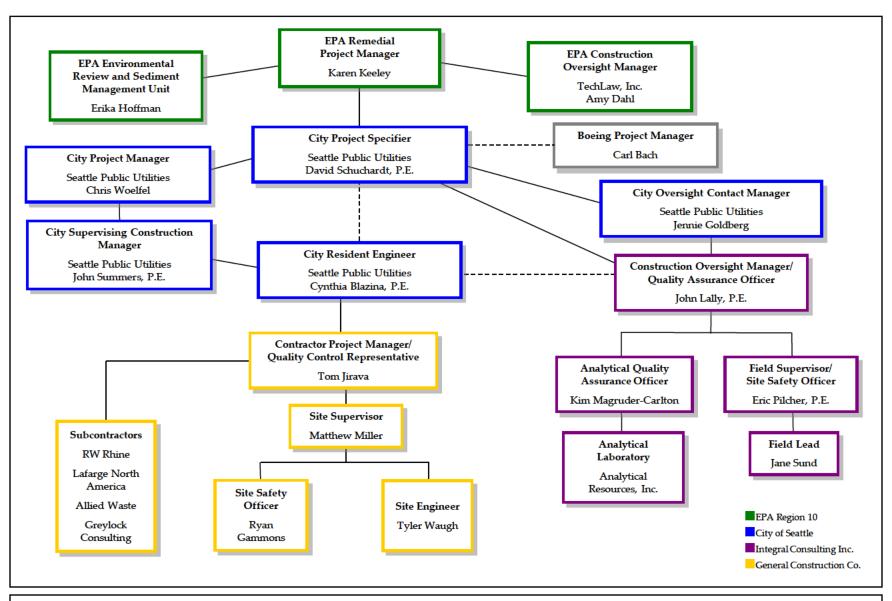




Figure 3-1 Removal Action Organization Chart Slip 4 Removal Action Work Plan

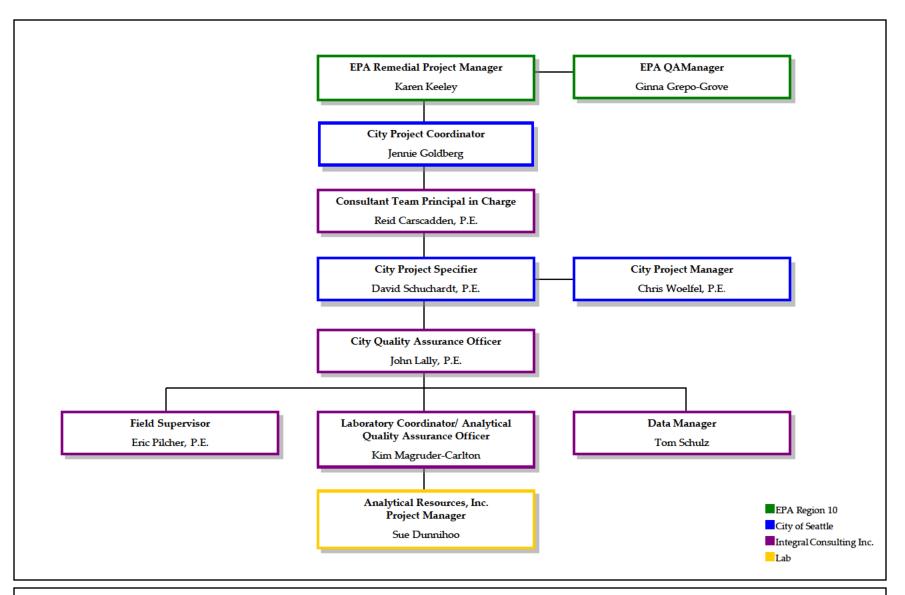




Figure 3-2 Quality Assurance Organization Chart Slip 4 Removal Action Work Plan



Figure 5-1 Field Memo Form

## Field Memo #

Contract Name:		Contractor:				
Subject:		Date/Time:	PW:			
Method of Notification:	E-mailed to	): <sub></sub>				
	II 1 1.1	14				
	Hand deliv	ered to:				
PLEASE REPLY TO:	Construction Engineer:					
Contractor's reply:						
Contractor's Rep Acknowledgen	nent:	Date/Time:				

Field Memo Word.doc Revised 8/15/08

## Potential Change Order Log Name of Project: Contractor: **Public Works Number:**

				<u> </u>			I	I					
PCO No.	Date	Description	FCR No.	RFI No.	FM No.	Date Issued	Engineer's Estimate	Cost Approved	Change Order #	Approved Date	WD Extension	CMD Costs	Comments
			-										
	-												
	+												
			1										

FCR: Field Change Request RFI: Request For Information FM: Field Memo Total CO \$ -\$0.00 \$0.00

Figure 5-2. PCO Tracking Log Revised 05/25/11

Table 1-1. SOW Required RAWP Elements

	Elements Required by SOW	Corresponding RAWP Section
•	Description of the removal action and related construction activities, including:	
	- Project organization	3.0
	<ul> <li>Construction contractor selection</li> </ul>	3.3.1
	<ul> <li>Site mobilization and preparatory work</li> </ul>	4.1.2
	<ul> <li>Dredging activities</li> </ul>	4.1.1, 4.4
	<ul> <li>Dredged or excavated material handling</li> </ul>	4.1.1, 4.3
	- Bathymetric surveys	4.5
	- Dredged or excavated material spill prevention	4.10.3
	<ul> <li>Procedures and plans for the decontamination of equipment and the disposal of contaminated decontamination materials</li> </ul>	4.3
	- Stormwater pollution prevention plan	4.10.2
	- Capping activities	4.1.1, 4.8
	- Performance verification	5.4
	<ul> <li>Water quality monitoring</li> </ul>	5.4
	- Quality assurance	5.0
	- Implementation of the ICIP	6.2.3
•	Schedule of activities for completion of the Removal Action, including inspections, meetings, and documents associated with the Removal Action	6.1
•	Schedule for developing and submitting other required Removal Action plans	6.2
•	Formulation of the Removal Action team	3.0
•	Construction quality control plan and statement of qualifications	4.9, 3.3.3
•	Procedures for processing design changes and securing EPA review and approval of such changes to ensure changes conform to performance standards and requirements of this SOW, and are consistent with the objectives of this removal action	5.5
•	Procedures for coordinating with EPA regarding compliance with EPA's Off-Site Rule	4.3
•	Removal Action Health and Safety Plan	Appendix B

Table 3-1. Project Team C	ontact Information.					
Organization	Individual	Project Role	Phone	Mobile	Fax	Email
EPA Region 10	Karen Keeley	Remedial Project Manager	206-553-2141	(b) (6)	206-553-0124	keeley.karen@epa.gov
	Erika Hoffman	Agency Water Quality Manager	360-753-9540			hoffman.erika@epa.gov
	Ginna Grepo-Grove	Quality Assurance Manager	206-553-1632		206-553-8210	grepo-grove.gina@epa.gov
TechLaw Inc.	Amy Dahl	Agency Construction Oversight Manager	206-577-3050			adahl@techlawinc.com
	Amanda Rohrbaugh		206-557-3054	916-698-8069		arohrbaugh@techlawinc.com
City of Seattle	David Schuchardt	Project Specifier	206-615-1642		206-684-4631	dave.schuchardt@seattle.gov
	Jennie Goldberg	Oversight Contract Manager	206-684-3167		206-386-4589	jennie.goldberg@seattle.gov
	Chris Woelfel	Project Manager	206-684-7599		206-233-1532	chris.woelfel@seattle.gov
	John Summers	Supervising Construction Manager	206-684-5074		206-684-8581	john.summers@seattle.gov
	Cynthia Blazina	Resident Engineer	206-255-8407	206-255-8407	206-684-8581	cynthia.blazina@seattle.gov
	Shaunie Cochran	Resident Engineer (backup)	206-255-6713	206-255-6713	206-684-8581	shaunie.cochran@seattle.gov
Integral Consulting	Reid Carscadden	Consultant Team Principal in Charge	206-957-0350	206-713-4372	206-230-9601	rcarscadden@integral-corp.com
	Eric Pilcher	Field Supervisor / Site Safety Officer	206-957-0337	206-919-0467	206-230-9601	epilcher@integral-corp.com
	Jane Sund	Field Lead	503-284-5545 ext 615	512-779-3172	503-284-5755	jsund@integral-corp.com
	Kim Magruder-Carlton	Laboratory Coordinator / Analytical QA Manager	360-756-9296			kmagruder@integral-corp.com
	Tom Schulz	Data Manager	360-705-3534 ext 17		360-705-3669	tschulz@integral-corp.com
(On-Call Consultant)	John Lally	Construction Oversight Manager / QA Officer	206-325-0274	206-369-2478	206-325-0252	jlally@integral-corp.com
Analytical Resources, Inc.	Sue Dunnihoo	Laboratory Project Manager	206-695-6207		206-621-7523	sued@arilabs.com
(ARI)	Dave Mitchell	Laboratory QA Manager	206-695-6205		206-621-7523	davem@arilabs.com
The Boeing Company	Carl Bach	Boeing Project Manager/Contact	206-898-0438			carl.m.bach@boeing.com
NBF Souce Control	Ray Powers	Boeing Source Control	425-495-5030			
		Duty Manager, King County Airport	206-296-7334			
	Peter Dumaliang	Environmental Scientist, King County Airport		206-391-7577		peter.dumaliang@kingcounty.gov
Muckleshoot Indian Tribe	Ken Dreewes	Lead Tribal Coordinator		253-261-7349		ken.dreewes@muckleshoot.nsn.us
						vessel.coordination@muckleshoot.nsn.us
General Construction	Tom Coultas	Project Sponsor	360-340-0932			
	Tom Jirava	Project Manager / Quality Control Representative	253-943-4200	253-606-6548		Tom.Jirava@kiewit.com
	Matthew Miller	Site Supervisor	253-943-4200	206-510-6554		Matthew.Miller@kiewit.com
	Ryan Gammons	SSHO / Project Safety Manager	253-943-4200	206-786-6237		Ryan.Gammons@kiewit.com
	Tyler Waugh	Site Engineer	253-943-4200	253-306-3397		Tyler.Waugh@kiewit.com
Rhine Demolition	Gil Olson	Demolition Subcontractor Supervisor		253-606-4806		
Lafarge North America	Jonathan Hall	Transloading Subcontractor Operations Manager	206-336-0962	206-661-8240	206-932-3803	jonathan.hall@lafarge-na.com
	Mike Depew	Transloading Subcontractor Technical Manager	206-973-8025 ext 1313	206-380-7601	206-932-3803	mike.depew@lafarge-na.com
	Sam Kranzthor	Transloading Field Superintendant	206-937-8025 ext 1324	206-396-3600		
Allied Waste	Leslie Whiteman	Transport & Disposal Subcontractor Manager	206-332-7711	206-391-1389		lwhiteman@republicservices.com
AES Surveying	Gary Chapman	Surveyor of Record		360-930-2080		
eTrac Engineering LLC	Mel Saunders	Hydographic Survey Supervisor		907-229-7351		
Greylock Consulting	Suzanne Dudziak	Contractor Field Sampling Lead	253-661-3520	253-266-2838		greylockllc@comcast.net
ARI	Mark Harris	Laboratory Project Manager	206-695-6210			markh@arilabs.com

Table 5-1. Summary of Construction Monitoring and Quality Assurance Testing Requirements.

Construction Element	Monitoring/Testing Requirement	Responsible Party	Frequency	Submitted To	Schedule Date	Completed Date
Quality Control—Section 01 45 00	Contractor Quality Control—Inspections					
	1. Preparatory Inspection	Contractor	Prior to beginning any work		8/30/2011 - 9/12/2011	
	2a. Condition Surveys	Contractor/City	Before work involving waterside structures		8/30/2011 - 9/12/2011	
	2b. Condition Surveys	Contractor/City	At completion of work involving waterside structures			
	3. Initial Inspection	Contractor/City	Representative portion of work complete			
	<ul><li>4. Follow-up Inspections</li><li>5. Agency Pre- and Final Inspections</li></ul>	Contractor Contractor/City/Integral/Agency	Daily  Completion of work or any increment established in			
		, , ,	the NTP			
	Sediment Verification (Appendix A)  1. Boundary Area Documentation Sampling	Integral	In accordance with Appendix A		8/30/2011 -	
		Integral			9/12/2011	
	<ol> <li>Bank Sideslope Documentation Sampling</li> <li>Cap Surface Verification Sampling</li> </ol>	Integral Integral	In accordance with Appendix A In accordance with Appendix A		12/12/2011 2/1/2012	
Environmental Pollution	Water Quality Monitoring (By Integral)					
Control—Section 01 57 50	Water Quality Monitoring	Integral	In accordance with WQMP and EPA's 401		10/1/2011 -	
	2. Presence of Sheens	Integral/Contractor	Certification Continuous during construction		02/14/2012 10/1/2011 -	
			-		02/14/2012 10/1/2011 -	
	Presence of Distressed or Dying Fish	Integral/Contractor	Continuous during construction		02/14/2012	
	Transloading Operations					
	<ol> <li>Vehicle Decontamination</li> <li>Wastewater Containment Procedures</li> </ol>	Integral/Contractor Integral/Contractor	Continuous during construction Continuous during construction			
	3. Chemical Testing of Transloading Wastewater (Sanitary Sewer Disposal)	Contractor	In accordance with Contractor's Permit from King County			
	4. Chemical Testing of Transloading Wastewater (Contingency - Discharge to Slip 4))	Integral	In accordance with WQMP and EPA's 401 Certification			
	5. Visual Monitoring of Erosion Control Measures	Integral	Continuous during construction			
	o. Visual Monitoring of Erosion Control Measures	mograf	Continuous during constitution			
eld Engineering—Section	Surveys and Survey Control					
1 71 23	Hydrographic/Topographic Surveys	Contractor (Independent)a	Pre-Dredge/Cap (Baseline)		8/30/2011 -	
	2a. Hydrographic/Topographic Surveys	Contractor	Progress surveys for dredging		9/12/2011	
	2b. Hydrographic/Topographic Surveys	Contractor (Independent) <sup>a</sup>	Acceptance surveys for dredging and excavation elements		11/21/2011	
	3a. Hydrographic/Topographic Surveys	Contractor	Progress surveys for capping		0/0/0040	
	3b. Hydrographic/Topographic Surveys	Contractor (Independent) <sup>a</sup>	Acceptance surveys for capping elements		2/2/2012	
ontract Closeout—Section 1 77 19	Pre-Final and Final Inspections	Contractor/City/Integral/Agency	Completion of work or any increment established In the NTP			
emolition and emovals—Section 02 41 13	Demolition of Pier, Timber Structures and Piling					
	1a. Pre-construction Conditions Documentation	Contractor	Prior to construction activities		8/30/2011 -	
	1b. Post-construction Conditions Documentation	Contractor	After construction activities		9/12/2011	
	Sample Wood and Timber Materials for     Disposal Characterization	Contractor	Prior to disposal, as required by landfill			
ediment Capping—Section	Import Material Characterization					
5 23 24	Physical Testing	Contractor	Testing report due two weeks prior to on-site			
	Chemical Testing	Contractor	placement; each material tested initially and retested for every 12,000 tons			
	Inspection of Borrow Source	Contractor/Integral	Prior to on-site placement			
	Inspection of Import Materials Delivered to	Contractor/Integral	Each truckload/barge load, upon delivery			
	Jobsite Inspection of Base Cap Layers	Integral	Prior to placement of armor material			
ediment Dredging and	Dredging/Excavation		to placeon or armor material			
edifient bredging and xcavation—Section 35 20 23						
	Install/Inspect Water Quality and Erosion     Measures	Contractor/City	Prior to initiating dredging activities			
	2. Position Monitoring of Dredging Operations	Contractor	Continuous			
	Visual inspection for Dredge Procedures, Barge Overflow, Transloading Spillage	Contractor/Integral	Continuous			
Vaste Material	Disposal of Dredged Material					
Disposal—Section 01 74 19						

**Notes:** This summary table is not intended to serve as a complete listing of monitoring and testing requirements. Refer to applicable sections of the CQAP and the Specifications for specific monitoring and testing requirements. The requirements shall prevail over this listing.

<sup>&</sup>lt;sup>a</sup>Hydrographic/topographic surveys performed by third-party surveyor under contract to the Contractor, in accordance with the Specifications.